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09/989,469	11/21/2001	Hiroyuki Kadota	381NP/50670	9865

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EXAMINER

NICOLAS, WESLEY A

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,469

Applicant(s)

KADOTA, HIROYUKI

Examiner

Wesley A. Nicolas

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restriction

1. The argument by Applicant that Examiner's statement that the apparatus can be used to deposit another metal is conclusory has been considered. However, since Applicant has not provided express admission that the claimed inventions are indistinct as required by *Lee*, the restriction as set forth in the previous Office action has been maintained. *In re Lee*, 199 USPQ 108 (Deputy Asst. Comm'r. for Pats 1978). Furthermore, Applicant's apparatus claims have only an intended use of plating gold, and the claim limitations merely recite structural limitations which can be used in any plating solution.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-9 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hurley et al. (5,368,715).

Claim 8 is rejected because Hurley et al. teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises a detecting means for detecting a deterioration degree of said plating solution (cols. 1 to 4).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be

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employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 9 is rejected because Hurley et al. teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises a means for measuring a pH of said plating solution (cols. 1 to 4 and Fig. 1, numeral 32), and a means for measuring acids in said plating solution (col. 3, lines 45-46 and Fig 1, numeral 24).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 12 is rejected because Hurley et al. teach that said means for measuring said sulfurous acid in said complex or sulfuric acid is an automatic titrator (col. 3, lines 45-46 and Fig 1, numeral 24).

Claim 13 is rejected because Hurley et al. teach of a monitoring unit for displaying a value measured by at least one of said means for measuring said pH, said means for measuring sulfurous acid and said means for measuring sulfuric acid (Fig. 1, numeral 44).

4. Claims 8-10 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Reid (6,458,262 B1).

Claim 8 is rejected because Reid teaches of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using

a gold sulfite plating solution, which comprises a detecting means for detecting a deterioration degree of said plating solution (cols. 2 to 4).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte

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Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 9 is rejected because Reid teaches of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises at least one of means for irradiating light to said plating solution and measuring a light intensity after said irradiation (cols. 2 to 4).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d

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576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 10 is rejected because Reid teaches that said means for measuring said light intensity is an absorptiometer (col. 4).

Claim 13 is rejected because Reid teaches of a monitoring unit for displaying a value measured by at least one of said means for measuring a light intensity (Fig. 2, numeral 223).

5. Claims 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Gomez et al. (6,508,924 B1).

Claim 8 is rejected because Gomez et al. teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises a detecting means for detecting a deterioration degree of said plating solution (cols. 1 to 3).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In

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order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 9 is rejected because Gomez et al. teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using

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a gold sulfite plating solution, which comprises a means for measuring a pH of said plating solution (cols. 1 to 4).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte

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Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

6. Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikenaga (5,858,196).

Claim 8 is rejected because Ikenaga teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises a detecting means for detecting a deterioration degree of said plating solution (col. 7).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4 USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are

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able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim 9 is rejected because Ikenaga teach of an electrolytic gold plating apparatus for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution, which comprises a means for measuring sulfuric acid of said plating solution (col. 7).

It should be noted that the preamble "*for performing electrolytic gold plating on a surface of a substrate body using a gold sulfite plating solution*", has not been given the effect of a limitation because it merely recites an intended use of the apparatus. In order to limit the claim, the preamble must be "essential to point out the invention defined by the claim." Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951). In claims directed to articles and apparatus, any phraseology in the preamble that limits the structure of that article or apparatus must be given weight. In re Stencel, 4

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USPQ2d 1071 (Fed. Cir. 1987). On the other hand, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); Kropa v. Robie, supra.

Furthermore, the requirement of gold sulfite is merely a method limitation in an apparatus claim. The intended use and operating method of an apparatus is not germane to the issue of patentability of the apparatus. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley et al. (5,368,715) as applied to claim 9 above, and further in view of Hodges et al. (6,193,865).

Hurley et al. are as applied, argued, and disclosed above and incorporated herein but fail to specifically teach of a glass pH electrode.

Hodges et al. teach of a glass pH electrode (col. 3).

Claim 11 is rejected because it would have been obvious and within the ordinary skill in the art at the time the invention was made to have modified Hurley et al. to use the glass pH electrode of Hodges et al. because Hodges et al. teach that a glass pH electrode is accurate and cheap to operate in addition to being reliable in oxidizing or reducing mediums (col. 3) which would have increase the overall efficiency and life of the pH meter.

Allowable Subject Matter

10. Claims 14-16 are allowed over the prior art of record.

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11. The following is a statement of reasons for the indication of allowable subject matter:

The specific apparatus which includes an absorptiometer for irradiating light to said plating solution and measuring a light intensity after said irradiation; a pH meter for measuring a pH of said plating solution; a concentration measurement unit consisting of an automatic titrator or a liquid chromatograph for measuring a concentration of at least one of sulfurous acid or sulfuric acid in said plating solution; pipes for individually connecting said absorptiometer, said pH meter and said concentration measurement unit to said gold plating bath, said pipes making said plating solution to pass through; and a personal computer for displaying quality of said plating solution based on a value measured by at least one of said absorptiometer, said pH meter and said concentration measurement unit were not taught or suggested by the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley Nicolas whose telephone number is (703)305-0082. The examiner can normally be reached on Mon.-Thurs. from 7am to 5pm.

The Supervisory Primary Examiner for this Art Unit is Roy King whose telephone number is (703) 308-1146.

The fax number for this Group is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Wesley A. Nicolas

August 6, 2003